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(71) Applicant (for all designated States except US): CUMMINS-ALLISON CORP. [US/US]; 891 Foothill Drive, Mount Prospect, IL 60056 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KLEIN, Robert, J. [US/US]; 2901 N. Walecott #G, Chicago, IL 60657 (US). HALLOWELL, Curtis, W. [US/US]; 1417 E. Reynolds

Drive, Palatine, IL 60067 (US). JENRICK, Charles, P. [US/US]; 3338 N. Paulina #2S, Chicago, IL 60657 (US).

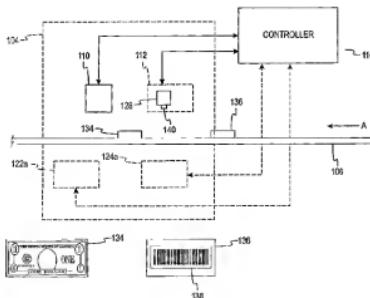
(74) Agents: SWINDELLS, Justin, D. et al.; Jenkins & Gilchrist, 225 W. Washington Street, Suite 2600, Chicago, IL 60606-3418 (US).

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{Continued on next page}

(54) Title: SYSTEM AND METHOD FOR PROCESSING BATCHES OF DOCUMENTS



(57) Abstract: A method of processing documents by receiving at least a batch of documents and a separator card in an input receptacle of a document processing device. The separator card includes a conductive material disposed on one side, and a barcode indicative of the source of the batch of documents. The documents and separator card are transported via a transport mechanism past an evaluation unit and a field-effect sensor, respectively. The document processing device evaluates each document, determines whether the document meets or fails predetermined criteria, and detects the presence of the conductive material when a separator card is transported past the sensor. The source identification information from each separator card is entered into a memory of the document processing device after all the documents from the corresponding batch of documents have met the predetermined criteria. Feeder operation is paused between each batch long enough to verify that the previous batch closed successfully. Pausing feeder operation to address document anomalies before subsequent batches are processed promotes batch integrity and reduces operator confusion.

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INTERNATIONAL SEARCH REPORT

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 GOTD

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 100 64 009 A1 (GIESECKE & DEVRIENT GMBH) 4 July 2002 (2002-07-04)	1-15, 20-39 16-19
Y	paragraph '0019! paragraph '0021! - paragraph '0022! paragraph '0026! - paragraph '0027! paragraph '0035! paragraph '0038!; figures 1-3 ----- US 2003/023342 A1 (CHRISTL RUDOLF ET AL) 30 January 2003 (2003-01-30) paragraph '0003! - paragraph '0004! paragraph '0017! - paragraph '0024! ----- -/-	16-19
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European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel: (+31-70) 340-2040, Tx. 31 651 epo nl
Fax: (+31-70) 340-3016

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Stenger, M

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	WO 03/107279 A (GIESECKE & DEVRIENT GMBH; DEMMELER, ERWIN; SCHMIDT, ALFRED; WERNER, FR) 24 December 2003 (2003-12-24) abstract page 10, line 7 - page 15, line 19 -----	1,22
A	EP 1 253 560 A (GIESECKE & DEVRIENT GMBH) 30 October 2002 (2002-10-30) paragraph '0002! - paragraph '0003! paragraphs '0017! - '0022! -----	16-19
A	US 2002/020603 A1 (JONES, WILLIAM, J ET AL) 21 February 2002 (2002-02-21) abstract; figures 1b,2,6,7b paragraph '0048! -----	1-39
A	EP 1 199 682 A (GIESECKE & DEVRIENT GMBH) 24 April 2002 (2002-04-24) paragraph '0028! - paragraph '0030! paragraph '0041! -----	1-39
A	WO 01/99059 A (GIESECKE & DEVRIENT GMBH; KUNZ, HANS-WOLFGANG; LOEFFLER, LUKAS; SCHINZ) 27 December 2001 (2001-12-27) page 15, line 22 - page 16, line 27 -----	1-39

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/029914

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
DE 10064009	A1	04-07-2002	NONE			
US 2003023342	A1	30-01-2003	DE CA EP	10133860 A1 2397126 A1 1276080 A2	06-02-2003 08-02-2003 15-01-2003	
WO 03107279	A	24-12-2003	DE WO	10226540 A1 03107279 A2	08-01-2004 24-12-2003	
EP 1253560	A	30-10-2002	DE EP US	10120904 A1 1253560 A2 2002158397 A1	31-10-2002 30-10-2002 31-10-2002	
US 2002020603	A1	21-02-2002	US US WO US AU CA DE EP WO US US US US US US US	6398000 B1 6318537 B1 03029913 A2 2005040225 A1 3679701 A 2396112 A1 10194950 T0 1257976 A1 0159723 A1 2004016621 A1 6588569 B1 6601687 B1 2004251110 A1 6637576 B1	04-06-2002 20-11-2001 10-04-2003 24-02-2005 20-08-2001 16-08-2001 05-12-2002 20-11-2002 16-08-2001 29-01-2004 08-07-2003 05-08-2003 16-12-2004 28-10-2003	
EP 1199682	A	24-04-2002	DE EP	10051554 A1 1199682 A2	02-05-2002 24-04-2002	
WO 0199059	A	27-12-2001	DE AT AU DE WO EP US	10030221 A1 268033 T 7967001 A 50102421 D1 0199059 A1 1297498 A1 2004225407 A1	03-01-2002 15-06-2004 02-01-2002 01-07-2004 27-12-2001 02-04-2003 11-11-2004	